

WHAT IS CLAIMED IS:

1. A method of operating a client that retrieves resources using HTTP commands, the method comprising:

accessing a public-switched-telephone-network line;

dialing, on the accessed line, a public-switched-telephone-network access number for a point-to-point HTTP server;

indicating that the client requests termination of the line as an HTTP connection to the point-to-point HTTP server; and

interacting with the point-to-point HTTP server over the accessed line using HTTP protocol requests and responses.

2. The method of claim 1, further comprising the client examining a uniform resource locator for a requested resource, and distinguishing from the contents of the uniform resource locator whether the requested resource is reachable via a point-to-point HTTP server.

3. The method of claim 2, wherein a uniform resource locator's contents indicate a point-to-point-HTTP-reachable resource by the presence of a point-to-point-HTTP-unique identifier in the service name field.

4. The method of claim 2, wherein a uniform resource locator's contents indicate a point-to-point-HTTP-reachable resource by the presence of a telephone number in the domain name field.

5. The method of claim 1, wherein indicating that the client requests termination of the line

as an HTTP connection comprises transmitting at least one tone indicative of a point-to-point HTTP session, on the accessed line.

6. The method of claim 1, wherein indicating that the client requests termination of the line as an HTTP connection comprises requesting a TCP connection to a TCP port on the HTTP server designated for point-to-point HTTP service.

7. A method of operating an HTTP server, the method comprising:

monitoring a public-switched-telephone-network line for incoming calls;

when an incoming call indicates a point-to-point HTTP call type, terminating the call with a connection to the HTTP server;

interacting with a client served by the connection using HTTP requests and responses.

8. The method of claim 7, further comprising detecting that an incoming call is of a point-to-point call type by detecting a signal comprising at least one tone on the public-switched-telephone-network line, the signal indicative of a point-to-point HTTP call type.

9. The method of claim 7, further comprising detecting that an incoming call is of a point-to-point call type by designating a TCP port on the HTTP server for point-to-point HTTP service, and associating an incoming call requesting a connection to that TCP port as a request for point-to-point HTTP service.

10. The method of claim 7, further comprising requesting authentication of the client as an authorized user.

11. The method of claim 7, further comprising parsing a resource path present in an HTTP request received from the client, determining whether the resource path is for a resource available at the server, and when the resource path is for a resource not available at the server,
5 determining whether the server can obtain the resource from a remote host.

12. The method of claim 11, where determining whether the server can obtain the resource from a remote host comprises parsing a host identifier from the resource path.

13. The method of claim 12, further comprising comparing the host identifier to identifiers contained in an information base available to the server.

14. The method of claim 11, wherein when the server determines that the resource is available from the remote host, the method further comprises requesting the resource from the remote host, receiving the resource from the remote host, and forwarding the resource to the client.
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15. An HTTP server comprising:

means for connecting the HTTP server to a public-switched-telephone-network line;

20 means for detecting an incoming call from an HTTP client on the public-switched-telephone-network line;

means for establishing a point-to-point HTTP session with an HTTP client on the public-switched-telephone-network line when an incoming call from an HTTP client is detected; and

means for interacting with an HTTP client over an established point-to-point HTTP

session.

16. The HTTP server of claim 15, further comprising means for serving HTTP requests from the HTTP client for resources that do not reside on the server.

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17. An HTTP server comprising:

a modem resource capable of connection to a public-switched-telephone-network line such that, when connected to the PSTN line, the modem resource can establish a link layer connection with a client;

a point-to-point HTTP service capable of serving HTTP requests received from the client via the modem resource.

18. The HTTP server of claim 17, wherein the modem resource is capable of establishing multiple link layer connections to different clients, and wherein the point-to-point HTTP service is capable of serving concurrent HTTP requests from multiple clients via the modem resource.

19. The HTTP server of claim 18, further comprising a TCP driver, wherein each client connects to the HTTP server by requesting a connection to a TCP port designated for the HTTP service, and the HTTP service identifies different clients by TCP socket.

20. The HTTP server of claim 17, further comprising a default resource to be returned to the client when the client submits an empty resource request.

21. The HTTP server of claim 17, further comprising an HTTP remote retrieval service capable of serving resources to a client, where those resources are not physically located on the server but are hosted on a separate host connected to the HTTP server by a data network.

5 22. The HTTP server of claim 17, wherein the modem resource comprises a data network tunnel to a remote network access device.

23. An HTTP-enabled appliance comprising:

a public-switched-telephone-network modem capable of initiating calls;

10 a processor capable of operating in conjunction with the public-switched-telephone-network modem so as to establish a point-to-point HTTP session with an HTTP server; and

15 a web browser capable of generating an HTTP request for transmission over an established point-to-point HTTP session and capable of receiving a response to that request over the established point-to-point HTTP session.

24. An HTTP-enabled appliance comprising:

means for initiating data calls over a public-switched-telephone network;

means for establishing a point-to-point HTTP session with an HTTP server via the data call initiating means; and

20 means for generating an HTTP request for transmission over an established point-to-point HTTP session; and

means for receiving a response to the HTTP request over the established point-to-point HTTP session.

25. An apparatus comprising a computer-readable medium containing computer instructions that, when executed, cause a processor or multiple communicating processors to perform a method for operating a client that retrieves resources using HTTP commands, the method comprising:

5 accessing a public-switched-telephone-network line;
 dialing, on the accessed line, a public-switched-telephone-network access number for a point-to-point HTTP server;

 indicating that the client requests termination of the line as an HTTP connection to the point-to-point HTTP server; and

 interacting with the point-to-point HTTP server over the accessed line using HTTP protocol requests and responses.

26. An apparatus comprising a computer-readable medium containing computer instructions that, when executed, cause a processor or multiple communicating processors to perform a method for operating an HTTP server, the method comprising:

 monitoring a public-switched-telephone-network line for incoming calls;

 when an incoming call indicates a point-to-point HTTP call type, terminating the call with a connection to the HTTP server;

 interacting with a client served by the connection using HTTP requests and responses.